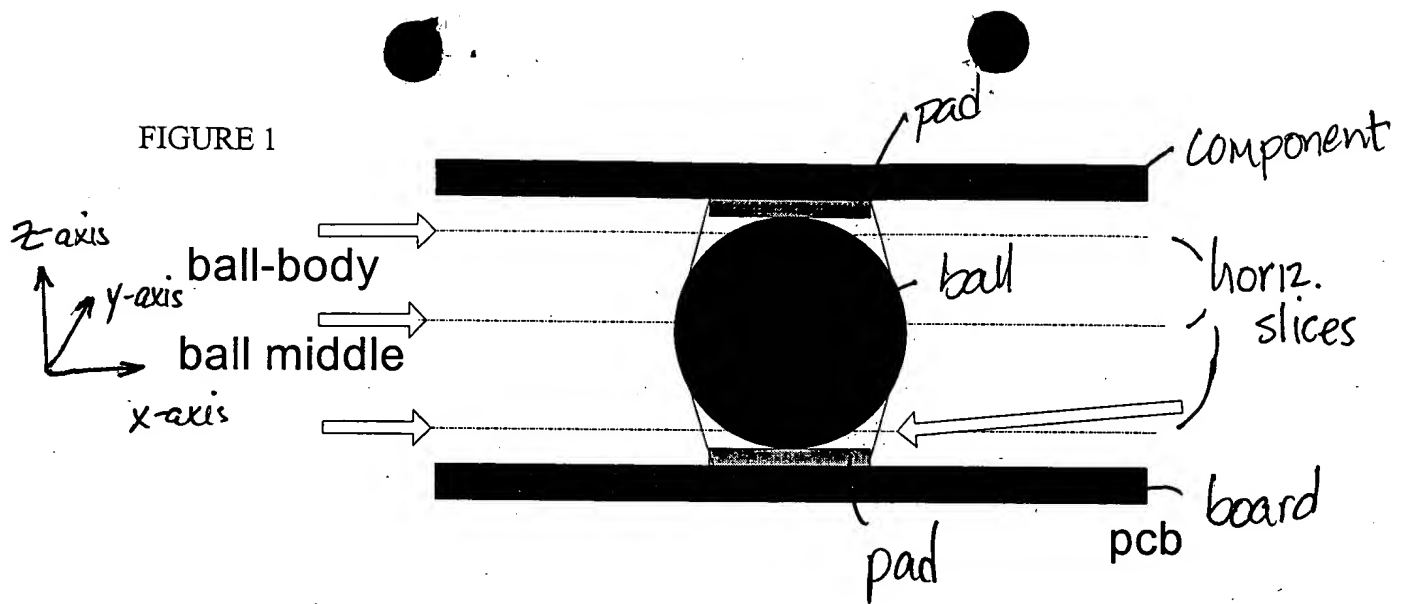


FIGURE 1

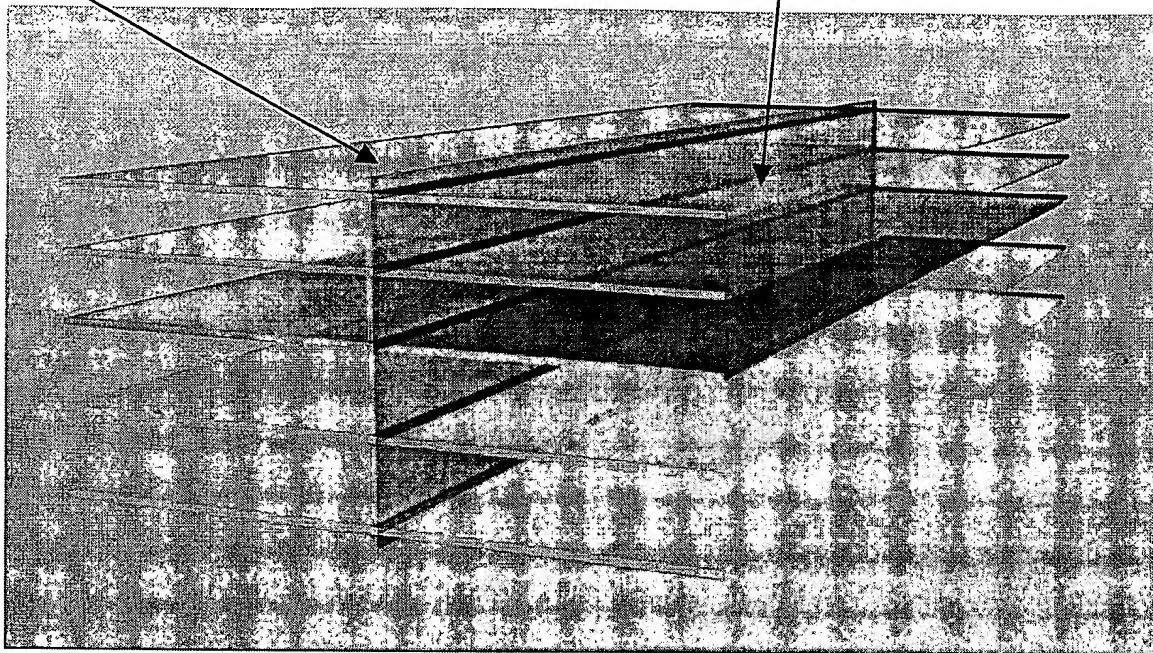


A bga ball showing the pad, ball and fillet

00203546-1 10200

Vertical Slice

Horizontal Slices



5

FIGURE 2

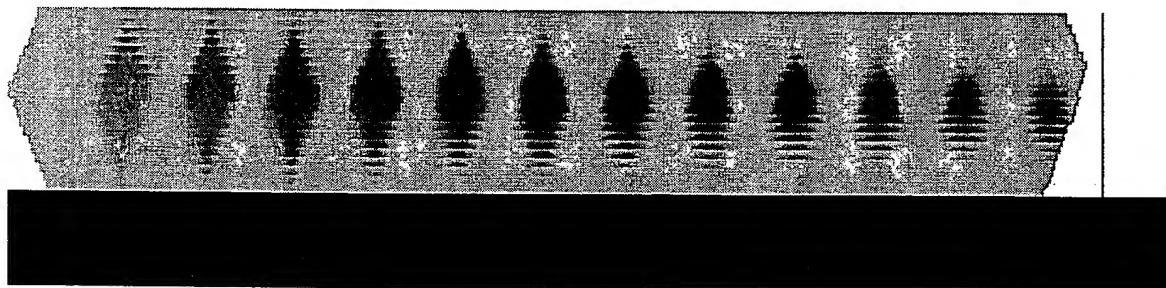
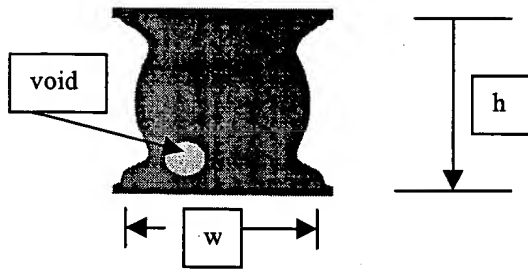
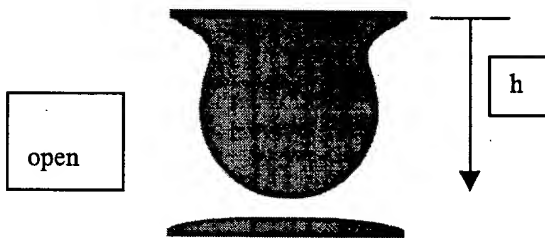


FIGURE 3

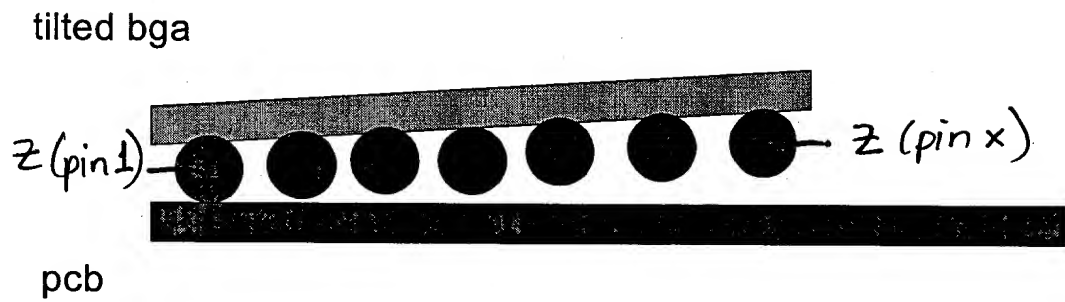
FIGURE 4



5

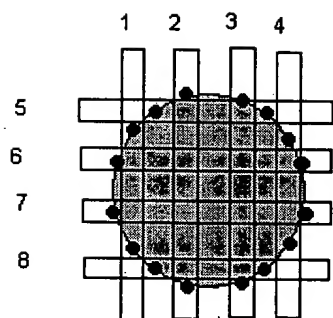


10 FIGURE 5



Tilted BGA example

FIGURE 6



004077-87920250

START

ACQUIRE DATA CORRESPONDING TO
A NUMBER OF HORIZONTAL SLICE
IMAGES

DEFINE A VERTICAL REGION OF
INTEREST FROM THE DATA

CONSTRUCT A VERTICAL SLICE IMAGE
BASED UPON DATA FALLING WITHIN
THE VERTICAL REGION OF INTEREST

ANALYZE THE VERTICAL SLICE
IMAGE TO DETERMINE
WHETHER A DEFECT IS
PRESENT

END

Fig. 7

START

ACQUIRE DATA CORRESPONDING TO A
NUMBER OF HORIZONTAL SLICE IMAGES

LOCATING A
BEST HORIZONTAL
SLICE IMAGE

COMPUTING, FOR AT
LEAST TWO OF THE
HORIZONTAL SLICE
IMAGES, AN AMOUNT
OF SOLDER

REFINING A
DISTRIBUTION OF THE
COMPUTED AMOUNTS
OF SOLDER

END

Fig. 8

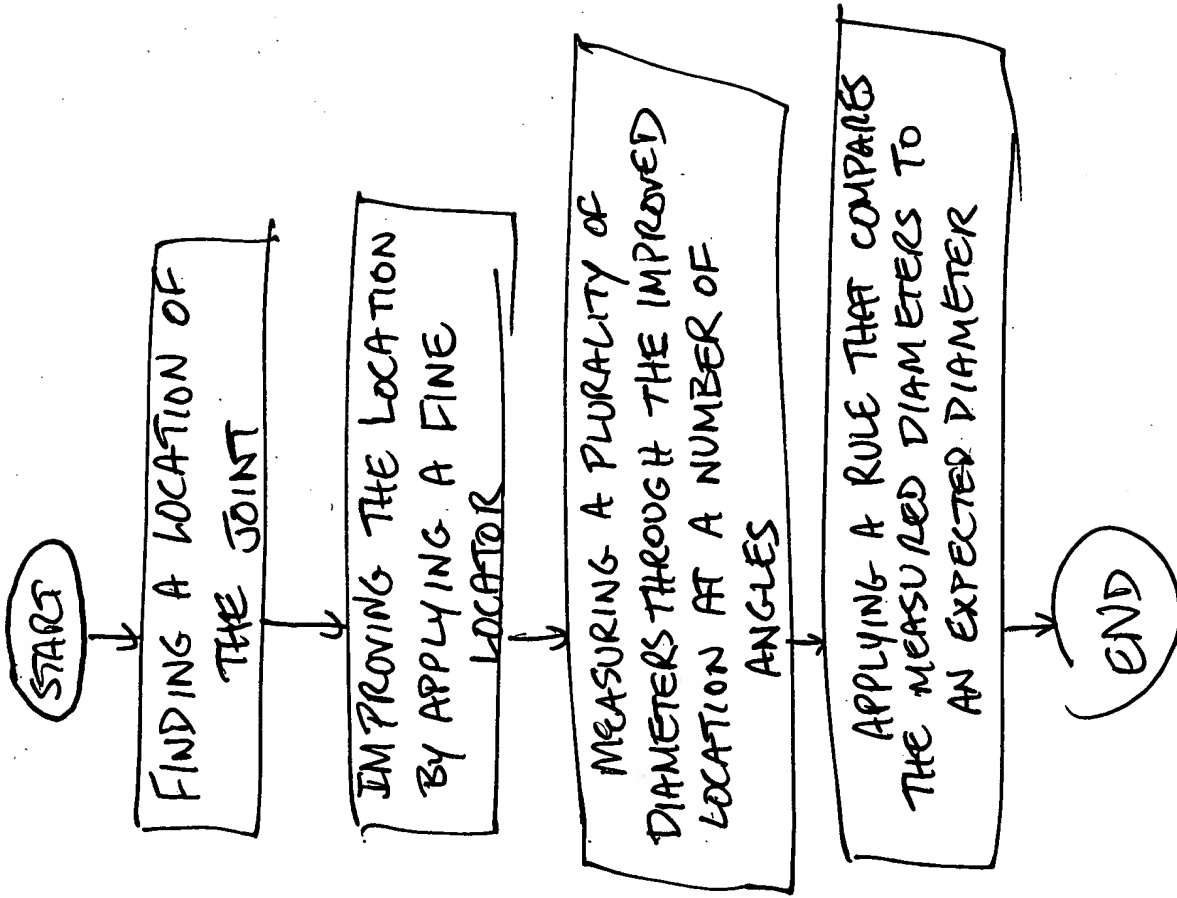


FIG. 9